

1 What is claimed is:

2 1. A method for persisting and recovering security keys in order to authorize a
3 daemon or a command-line interface ("CLI"), comprising:

4 reading, with root as an effective user id, one or more security keys into a
5 cache, wherein the root enables the reading of files including the one or more
6 security keys;

7 attempting to retrieve a private key from the cache using a real user id,
8 wherein the cached certain security keys may include the private key and the private
9 key may be used to digitally sign a message; and

10 determining if the private key was retrieved from the cache, wherein a
11 failure to retrieve the private key from the cache indicates that authorization failed.
12

13 2. The method of claim 1, further comprising:

14 setting, with the root as the effective user id, the certain security keys,
15 wherein the setting step triggers performance of the reading step.
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17 3. The method of claim 2, wherein the setting step comprises calling a setKeys
18 method, wherein the setKeys method includes the reading step.
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20 4. The method of claim 3, wherein a failure to retrieve the private key from the
21 cache is caused by an error in the setKeys method.
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23 5. The method of claim 1, further comprising:

24 entering the CLI, wherein the CLI is entered by a non-root user on a
25 managed node and the private key is a security key of the managed node.
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27 6. The method of claim 5, wherein the managed node has a public key, the
28 method further comprising:

29 if the private key was retrieved from the cache, sending a message and a
30 message copy, wherein the message copy is digitally signed with the private key
31 from the managed node;

32 digitally signing the message with the managed node's public key;

33 comparing the message signed with the public key to the message copy
34 signed with the private key; and

1 storing the key file, wherein the reading step comprises de-serializing the
2 key file and reading the private key into the cache.

3
4 13. A computer readable medium containing instructions for controlling a
5 computer system to persist and recover security keys in order to authorize a daemon
6 or a CLI, by:

7 reading, with root as an effective user id, one or more security keys into a
8 cache, wherein the root enables the reading of files including the security keys;

9 attempting to retrieve a private key from the cache using a real user id,
10 wherein the cached one or more security keys may include the private key and the
11 private key may be used to digitally sign a message; and

12 determining if the private key was retrieved from the cache, wherein a
13 failure to retrieve the private key from the cache indicates that authorization failed.

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15 14. The computer readable medium of claim 13, further containing instructions
16 for controlling the computer system by:

17 setting, with the root as an effective user id, the security keys, wherein the
18 setting step triggers the reading step.

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20 15. The computer readable medium of claim 14, wherein the setting the security
21 keys comprises calling a setKeys method, wherein the setKeys method that includes
22 the reading step.

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24 16. The computer readable medium of claim 13, wherein the computer system
25 comprises a managed node and the managed node has a public key, the computer
26 readable medium further containing instructions for controlling the computer
27 system by:

28 if the private key was retrieved from the cache, sending a message and a
29 message copy, wherein the message copy is digitally signed with the private key
30 from the managed node;

31 digitally signing the message with the managed node's public key;

32 comparing the message signed with the public key to the message copy
33 signed with the private key; and

1 determining if the message is authorized based on the comparison of the
2 message signed with the public key to the message copy signed with the private
3 key.

4
5 17. A method for persisting and recovering security keys in order to authorize a
6 daemon or a CLI, comprising:

7 initializing an authentication class, wherein the authentication class
8 comprises a setKeys method that includes a reading step;

9 calling, with root as an effective user id, the setKeys method of the
10 authentication class, wherein the root enables the reading of files including security
11 keys;

12 reading necessary security keys into a cache with the root; and

13 retrieving the necessary security keys from the cache using a real user id.

14
15 18. The method of claim 17, wherein the cache is a private variable of the
16 authentication class.

17
18 19. The method of claim 17, wherein the necessary security keys are a private
19 key of a managed node on which the authentication class is running and a public
20 key of a central management server to which the managed node is operatively
21 connected.

22
23 20. The method of claim 17, wherein the authentication class is a Java class
24 running in a Java Virtual Machine, the method further comprising:

25 initializing the Java Virtual Machine.